

## Online case report

## A rare sequela after a case of early bariatric surgery tourism

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Laparoscopic adjustable gastric banding (LAGB) is a well-established, safe procedure that may be an effective treatment of morbid obesity, although many surgeons are no longer performing this procedure because of its comparative inadequate weight loss [1]. LAGB is associated with fewer complications and a lower mortality rate compared with sleeve gastrectomy or gastric bypass [2,3]. However, because of the presence of a foreign body, unique complications may arise involving any of the components of the device. Complications resulting from the access port or connecting tube, such as port infection, are largely considered to be minor complications and range from 4.3% to 24% [4,5].

We present a rare case of jejunal perforation and intraluminal migration caused by the tip of the catheter left free-floating in the peritoneal cavity after surgery to remove an infected port. The surgeon who removed the port was unfamiliar with the patient's non-FDA-approved gastric band, which had been originally placed abroad, causing the major complications of this case. This rare LAGB complication might be considered a consequence of one of the earliest cases of bariatric tourism so far described.

### Case presentation

A 43-year-old female presented to the emergency department with a 2-year history of abdominal pain that had increased in severity 2 weeks before presentation. The patient's surgical history was significant for LAGB placement in France 12 years

earlier. She developed a severe infection at the port site 1 year before presentation to us, requiring port removal. The surgeon who removed the port, based on the patient's report, did not plan to follow-up with port replacement or band removal as "he did not feel comfortable enough to handle a device [MIDBAND, Medical Innovation Development, Dardilly, France] for which he had received no specific training and one that had not been approved for use in the United States."

### Management

The patient underwent a computerized tomographic scan of the abdomen and pelvis that showed erosion of the catheter into the small bowel without evidence of free air or intestinal leak (Fig. 1). Upper gastrointestinal endoscopy failed to show gastric erosion. The patient underwent laparoscopy, where we identified the LAGB catheter lying over the left abdomen without visualizing its free-floating tip. After grasping the catheter close to the band and following it distally, we realized that the tip of the catheter had gone through the wall of the jejunum, where it extended down the small intestine via peristalsis (Fig. 2). We pulled the catheter out and reapproximated the wall of the intestine where the chronic perforation had occurred with a 45-mm endo-GIA stapler (Ethicon, Inc., Cincinnati, OH). We then opened the MIDBAND proximal to the locking joint and removed the band with its attached catheter. A #10 Jackson-Pratt drain was left in place and removed on the second postoperative day before discharge. The patient was seen 1 week after discharge without any complaints, tolerating a general diet, and having regular bowel movements. The patient kindly declined the offer of further bariatric surgery

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Fig. 1. Computerized tomographic image showing erosion of the catheter (arrow) into the small bowel.

treatment, such as the insertion of a standard lap band or a laparoscopic sleeve gastrectomy, because she was satisfied with her current BMI (33) and overall well-being.

## Discussion

Though complications at the port-site or gastric band are the most common problem after LAGB [4,6,9], complications with the connecting tubing may also occur. There have been 3 other cases of intestinal perforation and intraluminal migration reported: one involving the jejunum [10] and two involving the colon [8,11]. The patient in this case presented with a port-site infection, a minor complication, whose mismanagement caused a more serious and rare complication, jejunal perforation, and intraluminal migration of the catheter tip. However, no guidelines currently exist for the management of port infections. The general consensus is as follows: the port should be removed if the infection is limited to the port and has not responded to antibiotic treatment [7], and the catheter should be secured



Fig. 2. Image taken during correctional surgery showing the site of perforation of the jejunum and intraluminal migration of the catheter.

to the abdominal wall or cut the shortest length possible, knotted, and left inside the peritoneal cavity [8]. Once the infection has resolved, the port should be replaced and the catheter reconnected under laparoscopic guidance or direct vision. A gastroscopy should be obtained when the port infection persists months after the initial placement, as this is almost invariably associated with band erosion, which requires band removal [7].

Besides the rarity of LAGB complications, this case raises concerns about the suboptimal management of bariatric interventions done abroad. Medical tourism, defined by the American Society of Metabolic and Bariatric Surgery (ASMBS) as “the practice of traveling across international borders to access healthcare systems or physician services that are not available or less attractive in a person’s native country” [12], represents a serious danger for our patients and raises major ethical issues. A survey by Deloitte estimated that approximately 750,000 Americans traveled abroad to seek medical care in 2007 [13], and Canada is experiencing a similar trend [14]. Specific concerns include whether or not outside hospitals and surgeons have the appropriate credentials to perform certain procedures and can ensure continuity of care. Problems may arise when surgeons based in the United States are not familiar with foreign devices or techniques and become responsible for complications of treatment they never performed. In the present case, the surgeon removing the port was perturbed by the presence of an unfamiliar device and made no follow-up plans, an unethical medical mismanagement. At the very least this patient should have been referred to another bariatric surgeon. Therefore, we support the following guideline from the ASMBS: “... extensive travel to undergo bariatric surgery should be discouraged unless appropriate follow-up and continuity of care are arranged and transfer of medical information is adequate” [12].

## Conclusions

The present case highlights 2 separate points in the care of bariatric patients. First, bariatric tourism should be discouraged unless continuity of care can be established. Second, clear guidelines need to be created for the care of LAGB complications, such as port-site infection.

## Disclosures

*The authors have no commercial associations that might be a conflict of interest in relation to this article.*

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